DCR-HC51E/HC52/HC52E/HC53E/ HC54/HC54E

SERVICE MANUAL

LEVEL 3

Ver 1.0 2007.12
Revision History

Photo: DCR-HC52

US Model
Canadian Model
AEP Model
UK Model
East European Model
North European Model
E Model
Argentine Model
Australian Model
Chinese Model
Korea Model
Brazillian Model
Mexican Model

N MECHANISM (MDX-N220)

Link

- MODEL INFORMATION TABLE
- PRINTED WIRING BOARDS
- REPAIR PARTS LIST
- SCHEMATIC DIAGRAMS

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Mini DV Digital Video Cassette

DIGITAL VIDEO CAMERA RECORDER

SONY

DCR-HC51E/HC52/HC52E/HC53E/HC54/HC54E_L3
9-852-224-11
Sony EMCS Co.
2007L0800-1
© 2007.12
Published by Kohda TEC

Model information table

Model	HC51E	HC52	HC52E	HC53E	HC54	HC54E
Destination	AEP, UK, NE, EE	US, CND, MX, BR, AR, KR, E	NE, AUS, CH, E	AEP, UK, NE, EE	CND, AR, E	NE, CH, E
Color system	PAL	NTSC	PAL	PAL	NTSC	PAL
DV i.LINK Interface	OUT	IN/OUT	IN/OUT	OUT	IN/OUT	IN/OUT
USB jack	×	×	×	○	○	○

- Abbreviation
  AR : Argentine model
  AUS : Australian model
  BR : Brazilian model
  CH : Chinese model
  CND : Canadian model
  EE : East European model
  KR : Korea model
  MX : Mexican model
  NE : North European model

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270˚C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

Unleaded solder

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

4-2. SCHEMATIC DIAGRAMS

Link

- VC-537 BOARD (1/13) (CONNECTOR)
- VC-537 BOARD (2/13) (BATT CHARGE/POWER SUPPLY)
- VC-537 BOARD (3/13) (DC/DC CONVERTER)
- VC-537 BOARD (4/13) (A/D CONVERTER, TIMING GENERATOR)
- VC-537 BOARD (5/13) (LENS DRIVE, EVR)
- VC-537 BOARD (6/13) (DV SIGNAL PROCESS, DV INTERFACE)
- VC-537 BOARD (7/13) (REC/PB AMP)
- VC-537 BOARD (8/13) (VIDEO OUT, AUDIO I/O)
- VC-537 BOARD (9/13) (HI CONTROL)
- VC-537 BOARD (10/13) (CAMERA/MECHA CONTROL)
- VC-537 BOARD (11/13) (SERVO)
- VC-537 BOARD (12/13) (EVR (D/A CONVERTER))
- VC-537 BOARD (13/13) (LCD/EVF DRIVE)
- COMMON NOTE FOR SCHEMATIC DIAGRAMS

4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-2. SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

(For schematic diagrams)

- All capacitors are in μF unless otherwise noted. pF : μμF. 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted. kΩ=1000 Ω, MΩ=1000 kΩ.
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

  Example C541 22U TA A — Kinds of capacitor / Case size
  L452 10UH 2520 — External dimensions (mm)
- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.
  In such cases, the unused circuits may be indicated.
- Parts with ★ differ according to the model/destination.
  Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → $\overline{\text{EDIT}}$ PB/XREC → PB/$\overline{\text{REC}}$
- : non flammable resistor
- : fusible resistor
- : panel designation
- : B+ Line
- : B– Line
- : IN/OUT direction of (+,–) B LINE.
- : adjustment for repair.
- : not use circuit

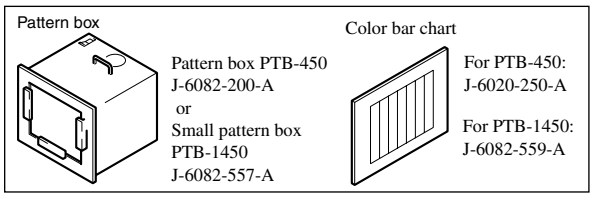
(Measuring conditions voltage and waveform)

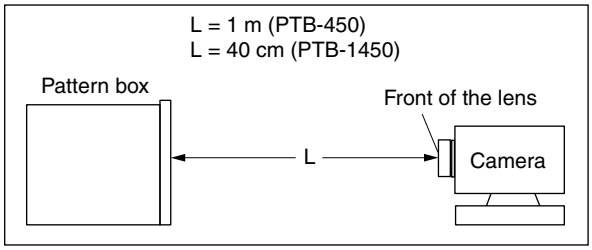
- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference waveforms.
  (VOM of DC 10 MΩ input impedance is used)
- Voltage values change depending upon input impedance of VOM used.)

Precautions for Replacement of Imager

- If the imager has been replaced, carry out all the adjustments for the camera section.
- As the imager may be damaged by static electricity from its structure, handle it carefully like for the MOS IC.
  In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.

1. Connection





2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

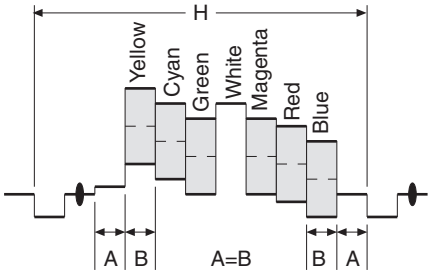


Fig. a (Video output terminal output waveform)

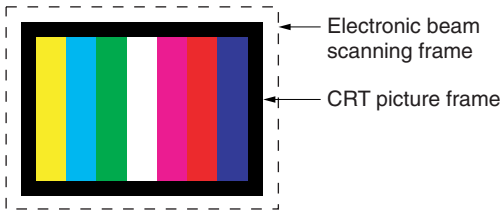


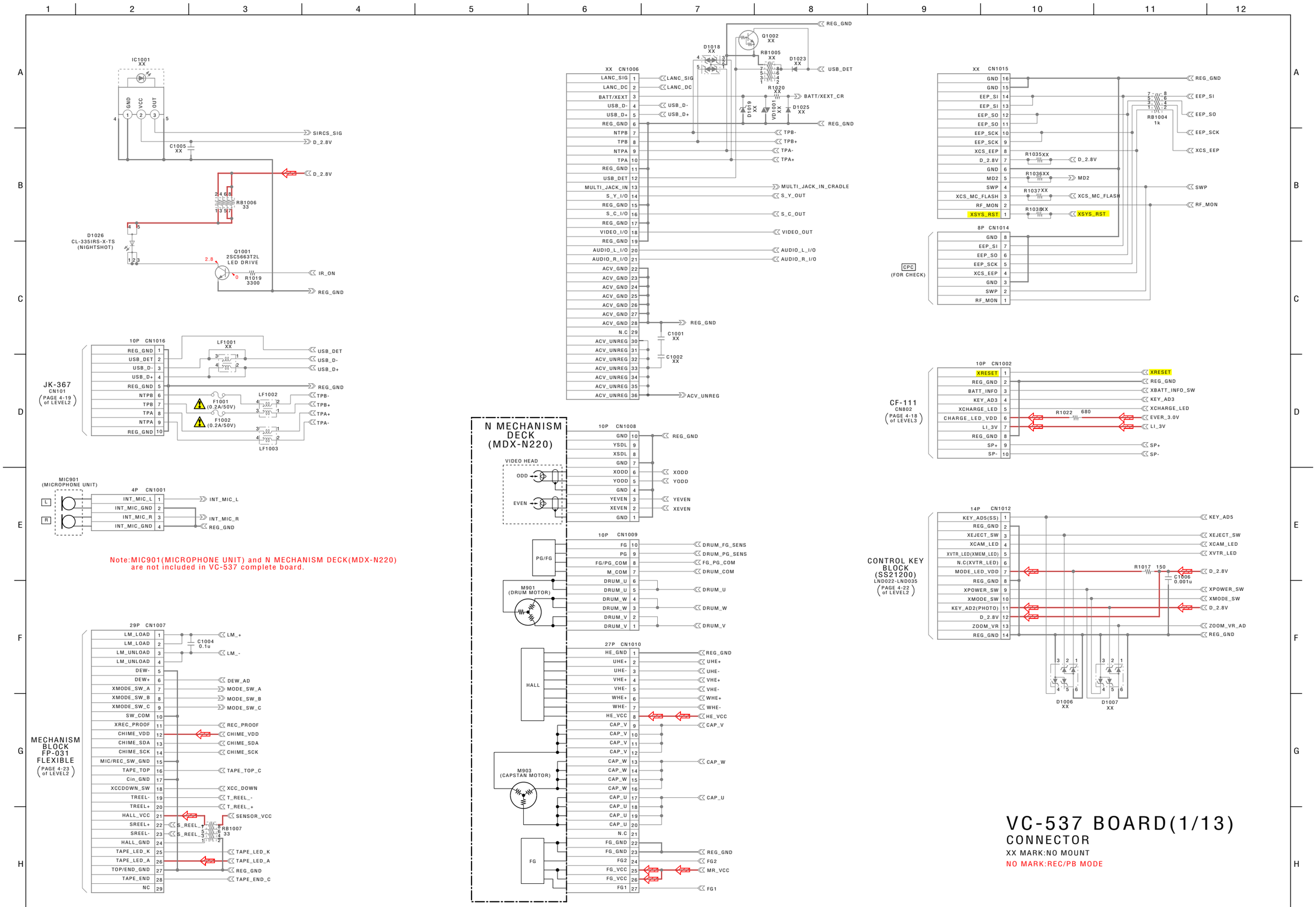
Fig.b (Picture on monitor TV)

When indicating parts by reference number, please include the board name.

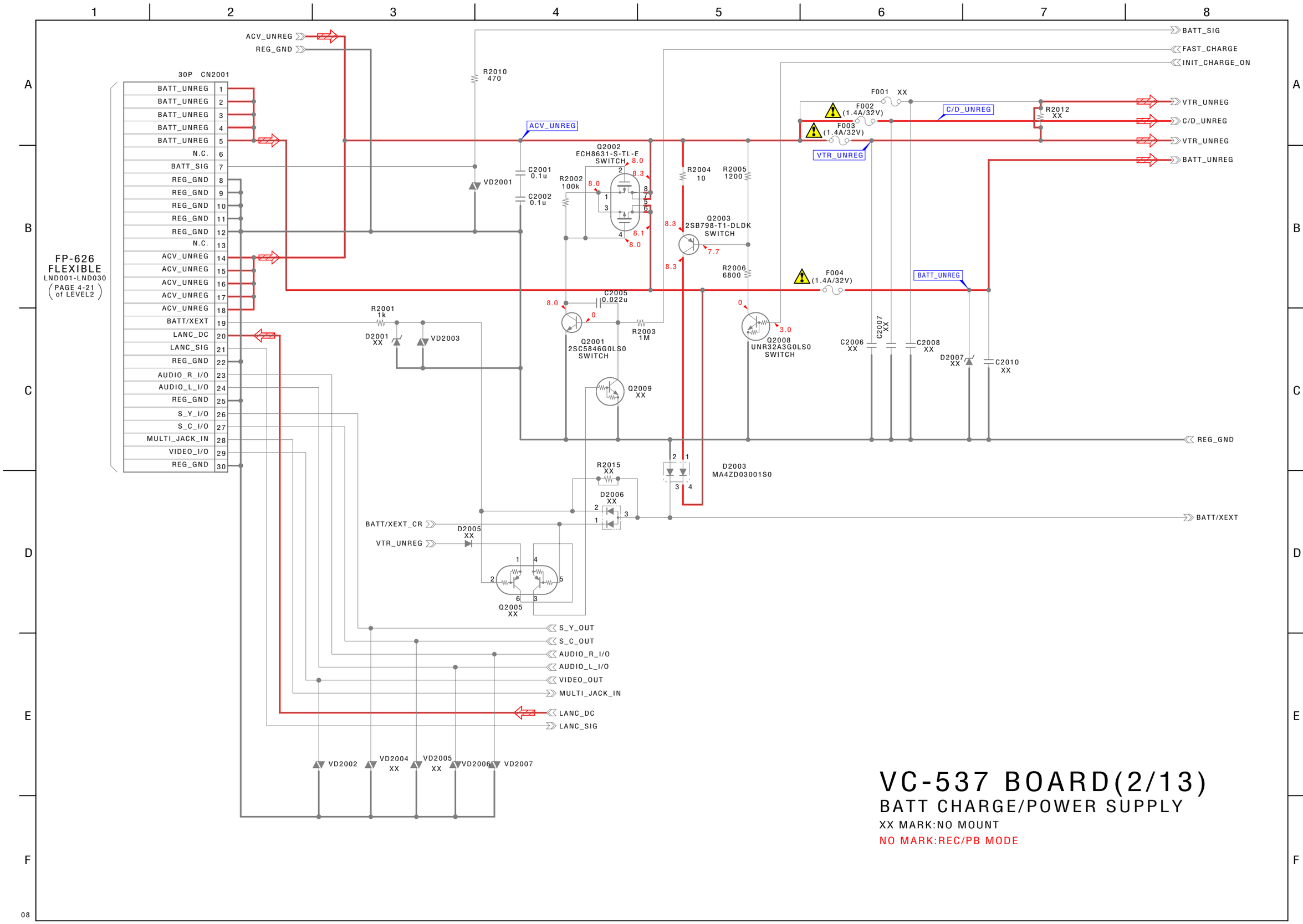
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifie.

• Refer to page 4-2 for mark ⚠.



• Refer to page 4-2 for mark ⚠.

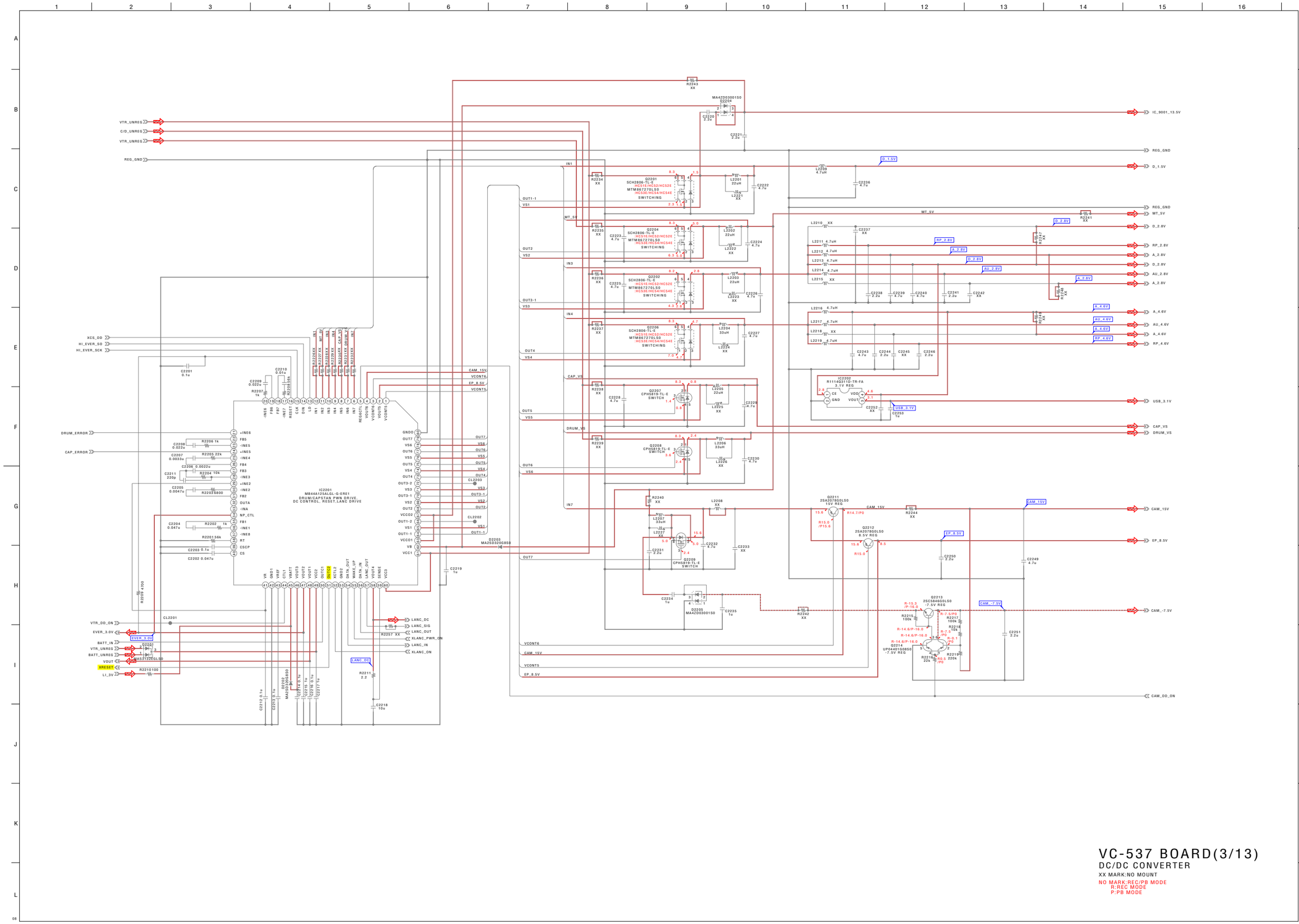


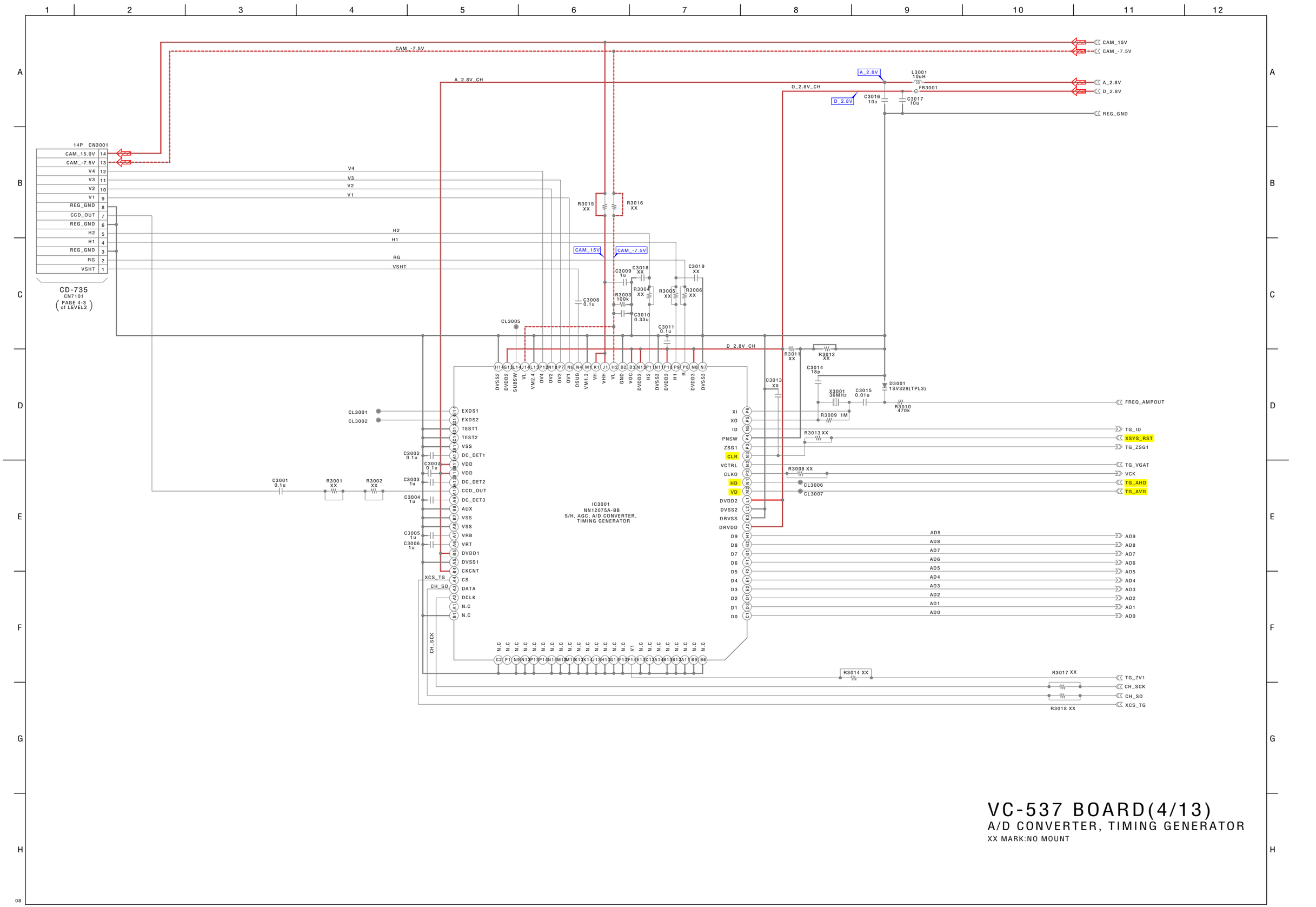
VC-537 BOARD(2/13)

BATT CHARGE/POWER SUPPLY

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

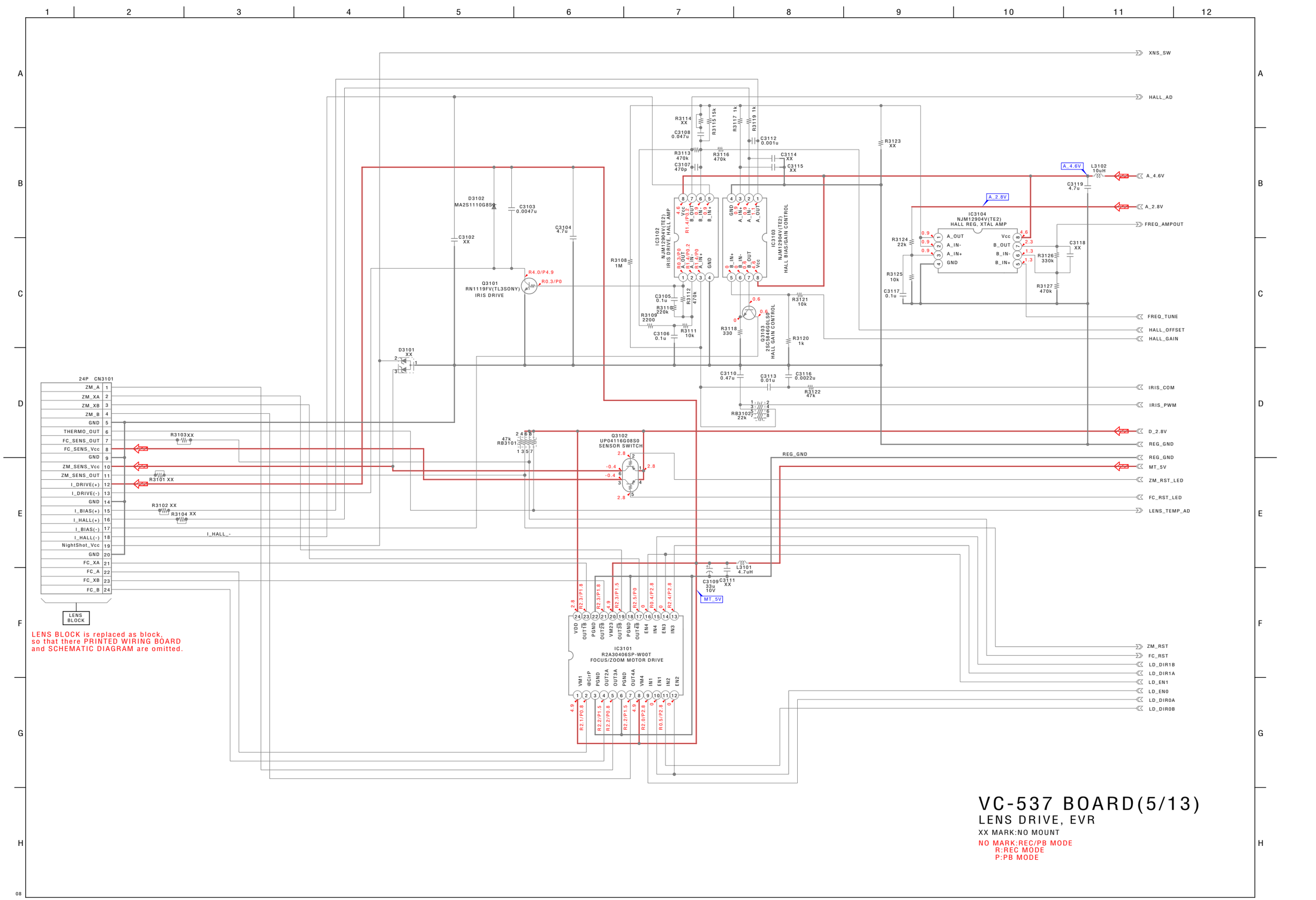

VC-537 BOARD(3/13)
DC/DC CONVERTER
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
R:REC MODE
P:PB MODE
IC2201
MB44A125ALGL-G-ERE1
DRUM/CAPSTAN PWN DRIVE, DC CONTROL, RESET,LANC DRIVE
Q2201 SCH2806-TL-E :HCS1E/HCS2/HCS2E MTM867270LS0 :HCS3E/HCS4/HCS4E SWITCHING
Q2202 SCH2806-TL-E :HCS1E/HCS2/HCS2E MTM867270LS0 :HCS3E/HCS4/HCS4E SWITCHING
Q2204 SCH2806-TL-E :HCS1E/HCS2/HCS2E MTM867270LS0 :HCS3E/HCS4/HCS4E SWITCHING
Q2206 SCH2806-TL-E :HCS1E/HCS2/HCS2E MTM867270LS0 :HCS3E/HCS4/HCS4E SWITCHING
Q2207 CPH5819-TL-E SWITCH
Q2208 CPH5819-TL-E SWITCH
Q2209 CPH5819-TL-E SWITCH
IC2202 R1114Q311D-TR-FA 3.1V REG
Q2211 2SA2078G0LS0 15V REG
Q2212 2SA2078G0LS0 8.5V REG
Q2213 2SC5846G0LS0 -7.5V REG
Q2214 UPD4401GG8S0 -7.5V REG
D2203 MA2S032GGBS0
D2205 MA4ZD0300ISO
MA4ZD0300ISO Q2204
Q2210 MAS3122EGLS0
D2202 MA3S200GBS0
VTR_UNREG
C/D_UNREG
REG_GND
XCS_DD
HI_EVER_SO
HI_EVER_SCK
DRUM_ERROR
CAP_ERROR
VTR_DD_ON
EVER_3.0V
BATT_IN
XRESET
LI_3V
LANC_DC
LANC_SIG
LANC_OUT
XLANC_PWR_ON
LANC_IN
XLANC_ON
IC_9001_13.5V
D_1.5V
MT_5V
D_2.8V
RP_2.8V
A_2.8V
AU_2.8V
A_4.6V
AU_4.6V
RP_4.6V
USB_3.1V
CAP_VS
DRUM_VS
CAM_15V
EP_8.5V
CAM_-7.5V
CAM_DD_ON



VC-537 BOARD(4/13)

A/D CONVERTER, TIMING GENERATOR

XX MARK:NO MOUNT

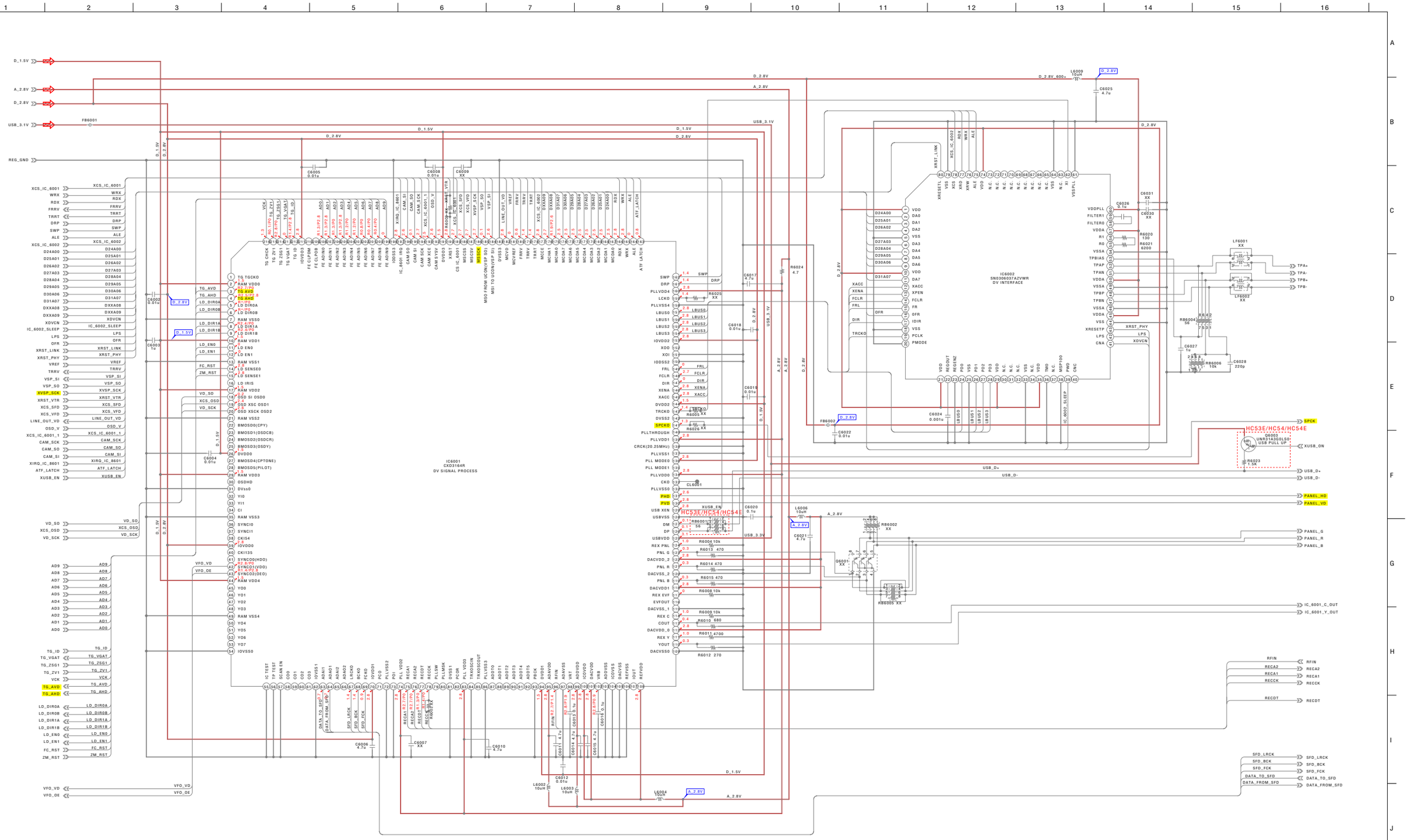


VC-537 BOARD(5/13)

LENS DRIVE, EVR

XX MARK:NO MOUNT

NO MARK:REC/PB MODE
R:REC MODE
P:PB MODE

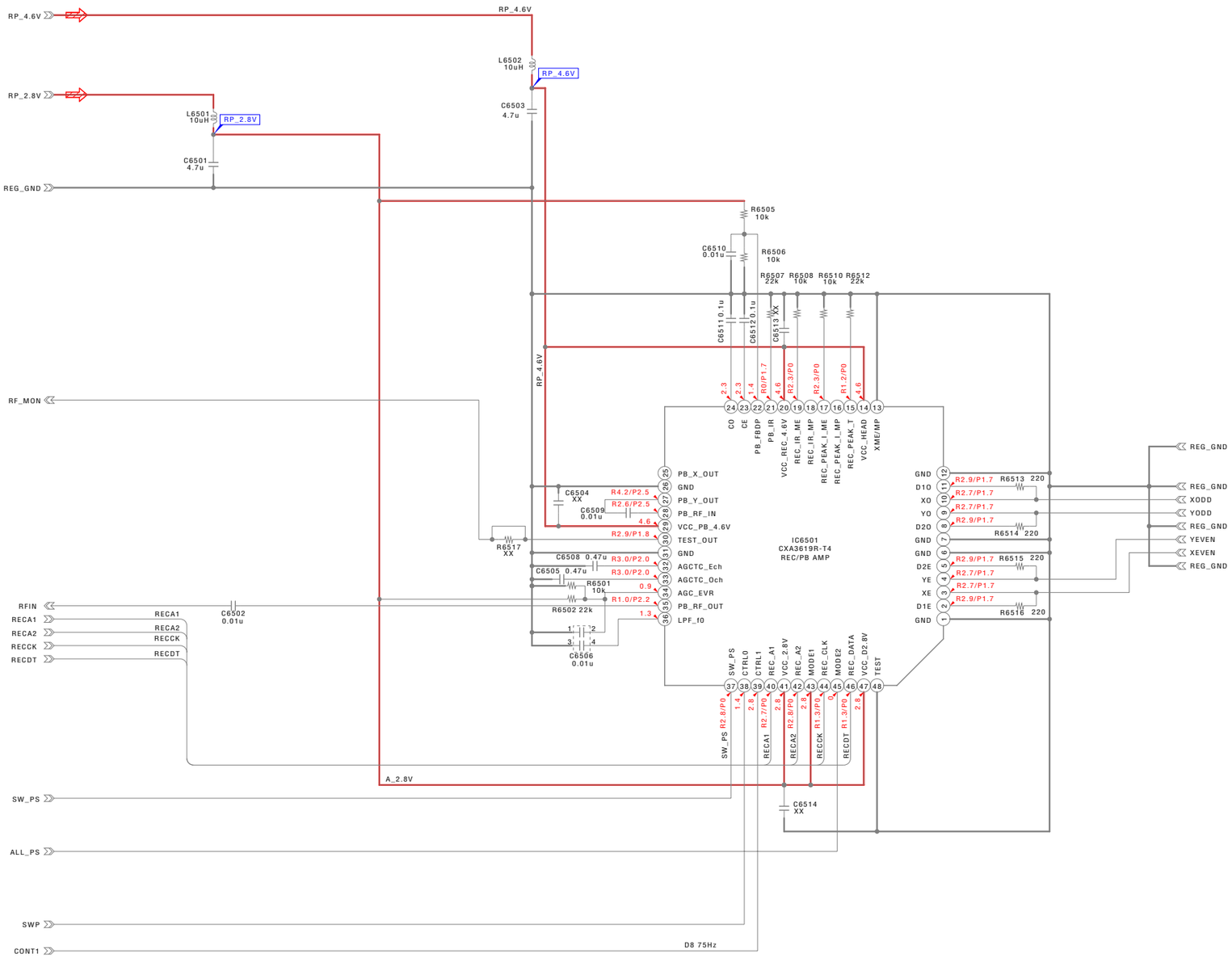


VC-537 BOARD(6/13)

DV SIGNAL PROCESS, DV INTERFACE

XX MARK:NO MOUNT

NO MARK:REC/PB MODE
R:REC MODE
P:PB MODE
*:IMPOSSIBLE TO MEASURE THE VOLTAGE AT THE MARKED POINTS.

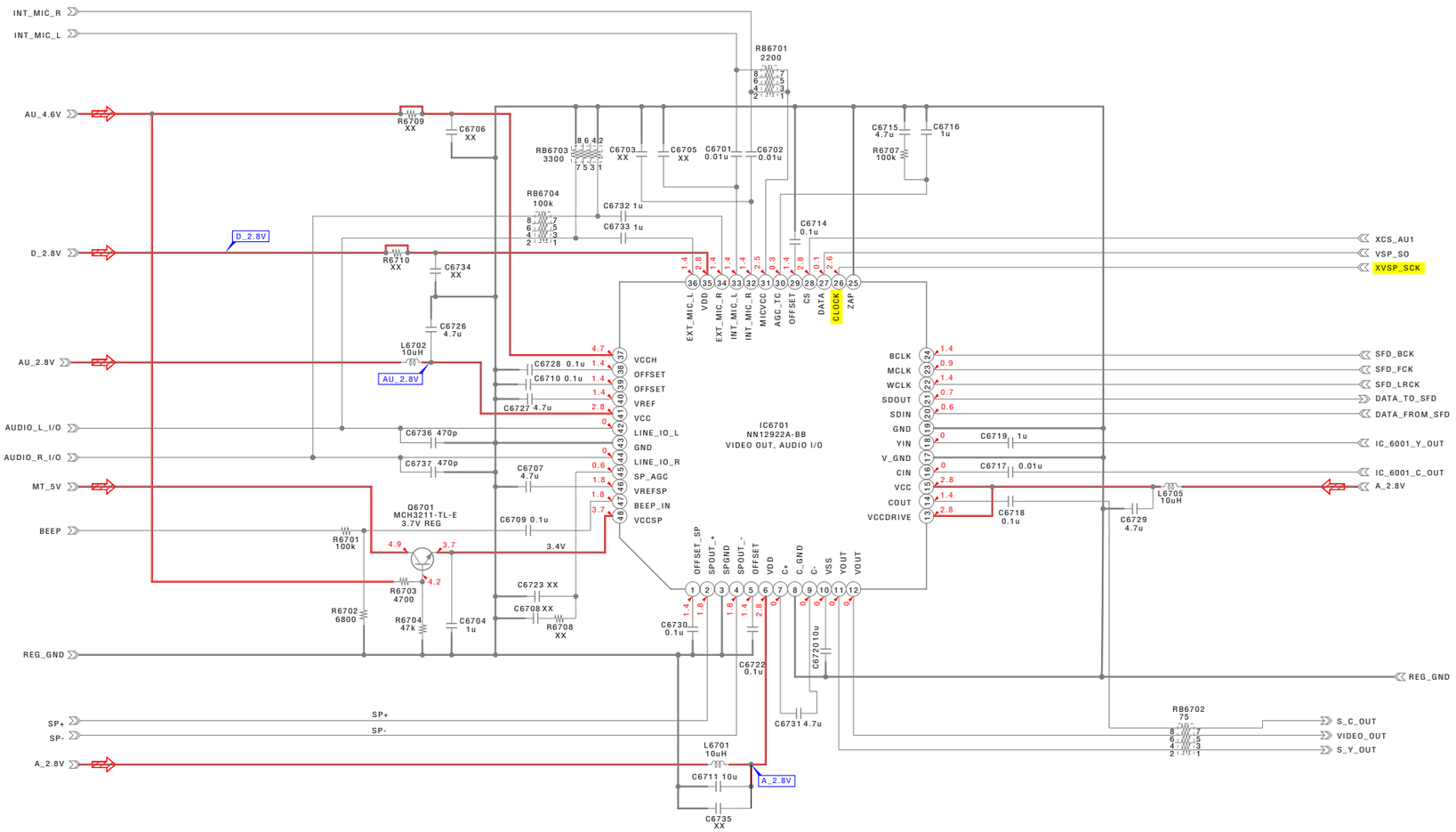


VC-537 BOARD(7/13)

REC/PB AMP

XX MARK:NO MOUNT

NO MARK:REC/PB MODE
R:REC MODE
P:PB MODE

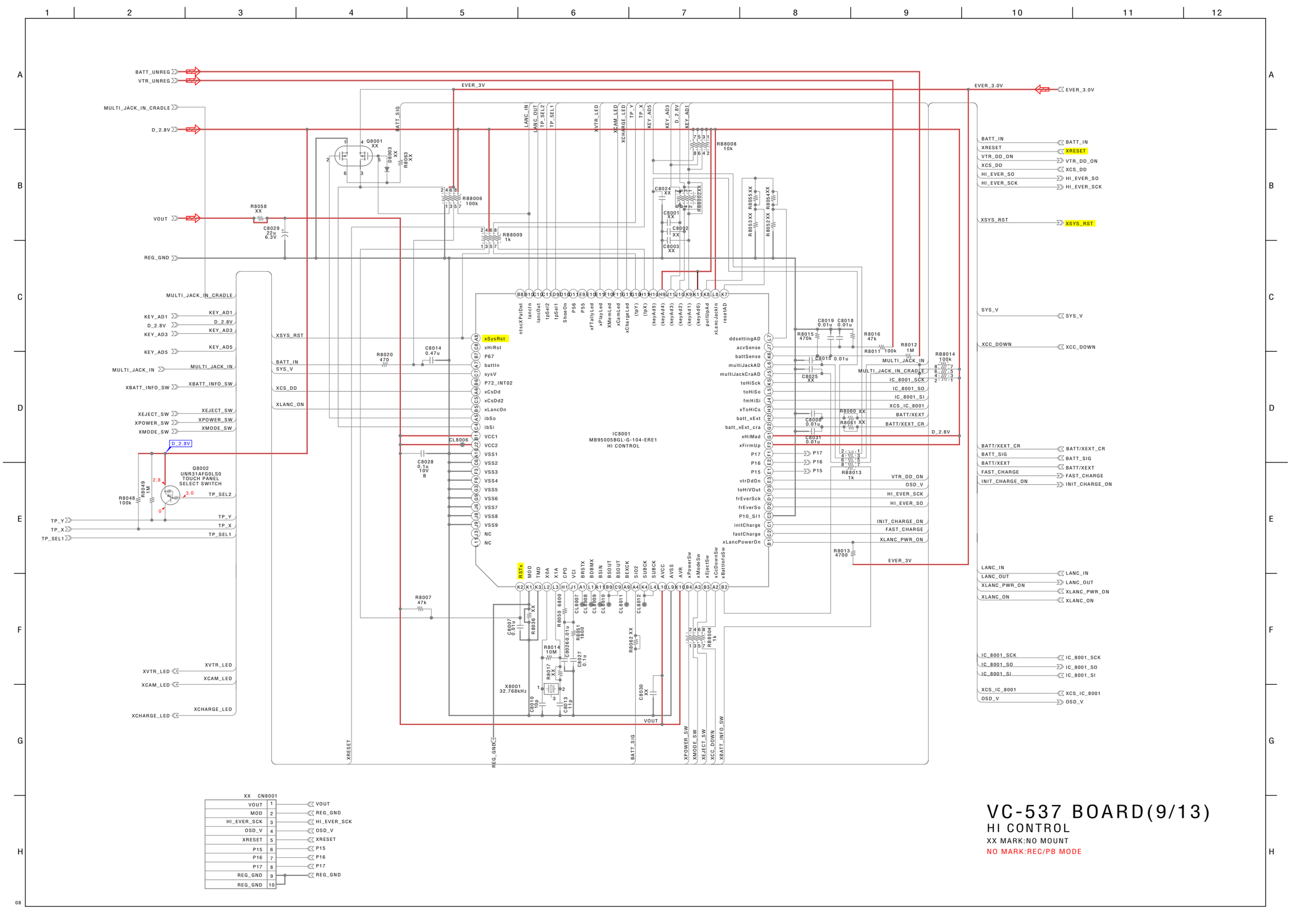


VC-537 BOARD(8/13)

VIDEO OUT, AUDIO I/O

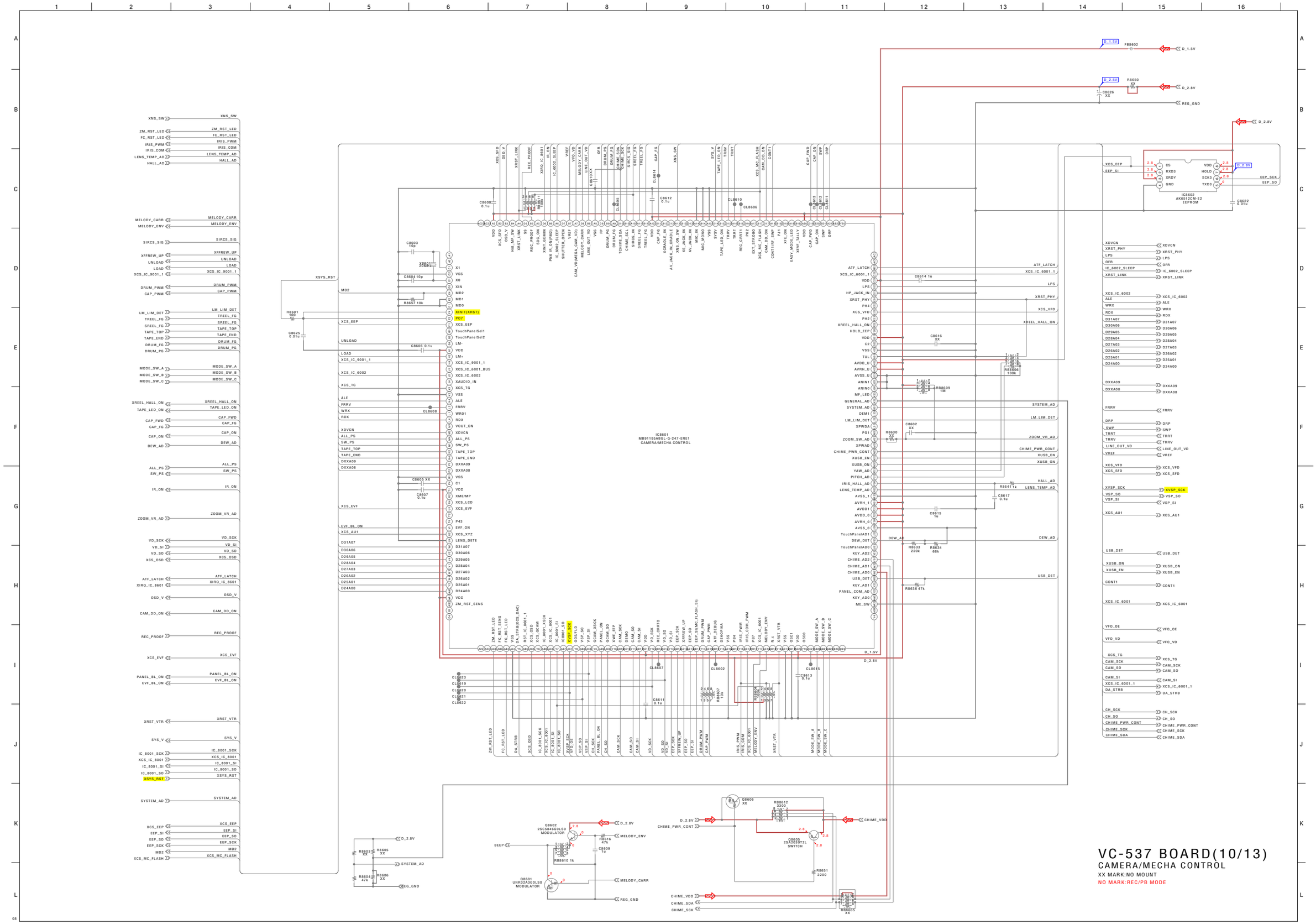
XX MARK:NO MOUNT

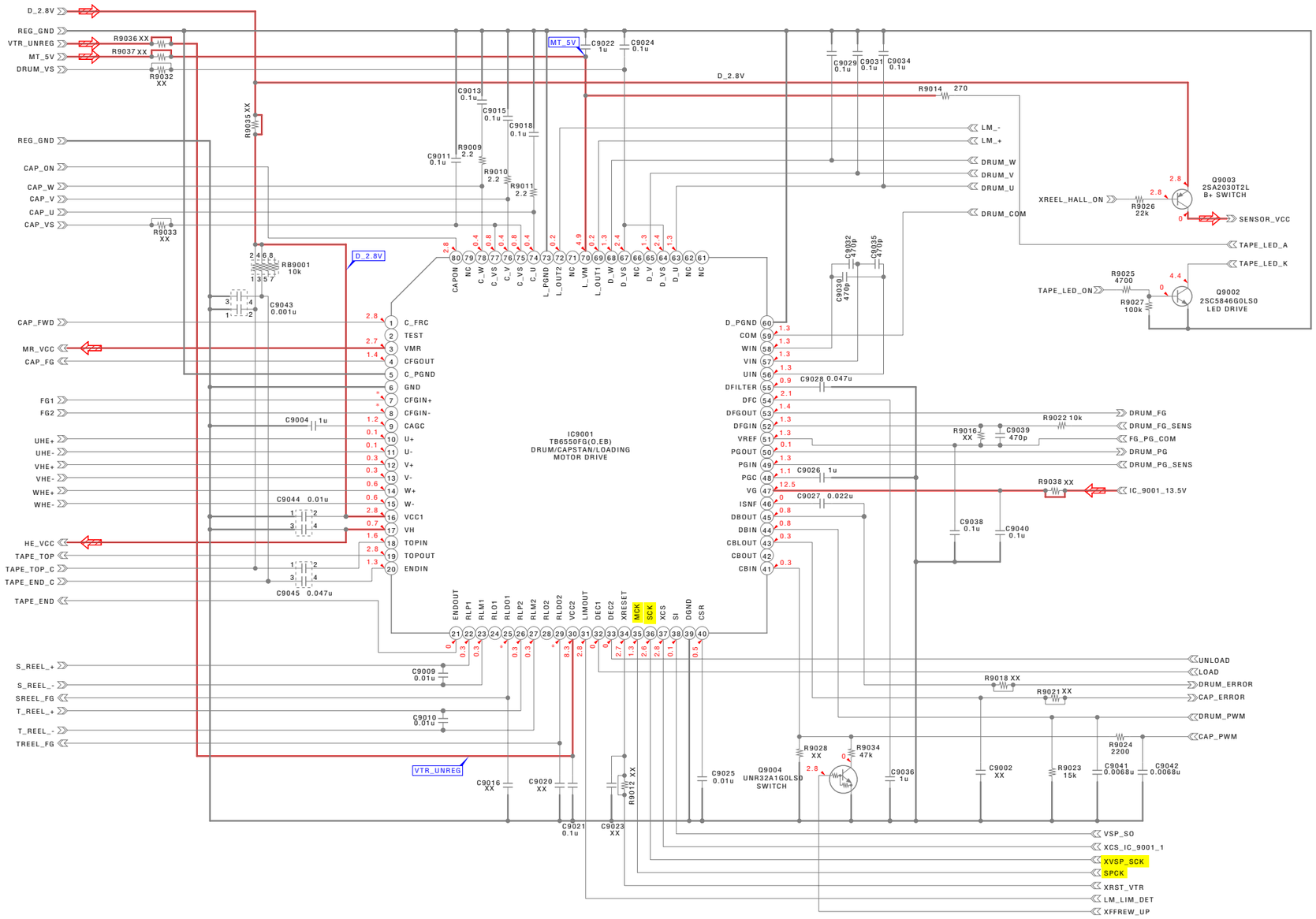
NO MARK:REC/PB MODE



XX CN8001

VOUT	1	VOUT
MOD	2	REG_GND
HI_EVER_SCK	3	HI_EVER_SCK
OSD_V	4	OSD_V
XRESET	5	XRESET
P15	6	P15
P16	7	P16
P17	8	P17
REG_GND	9	REG_GND
REG_GND	10	


IC8601
MB91195ABGL-G-247-ERE1
CAMERA/MECHA CONTROL
IC8602
AK6512CM-E2
EEPROM
VC-537 BOARD(10/13)
CAMERA/MECHA CONTROL
XX MARK:NO MOUNT
NO MARK:REC/PB MODE



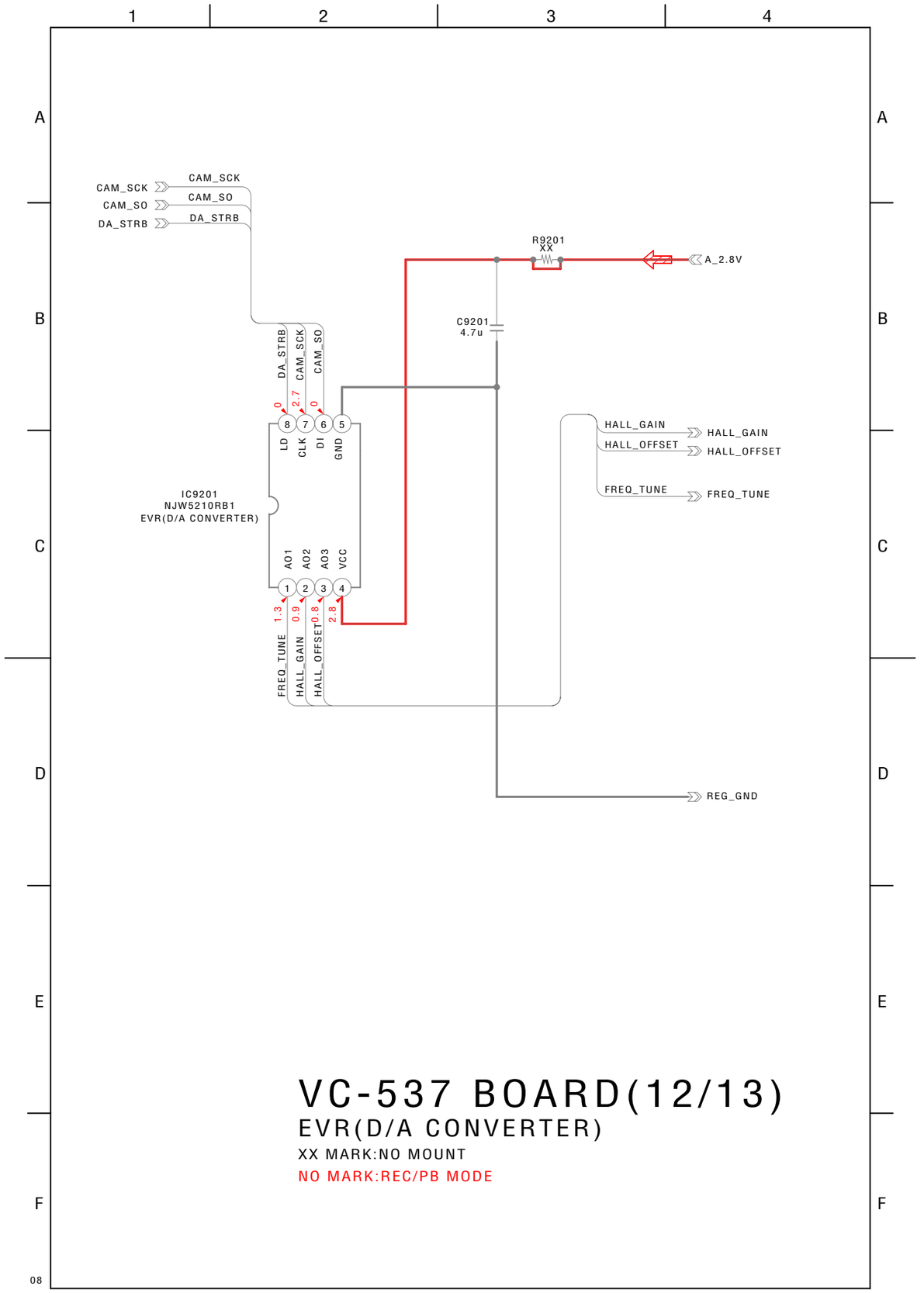
VC-537 BOARD(11/13)

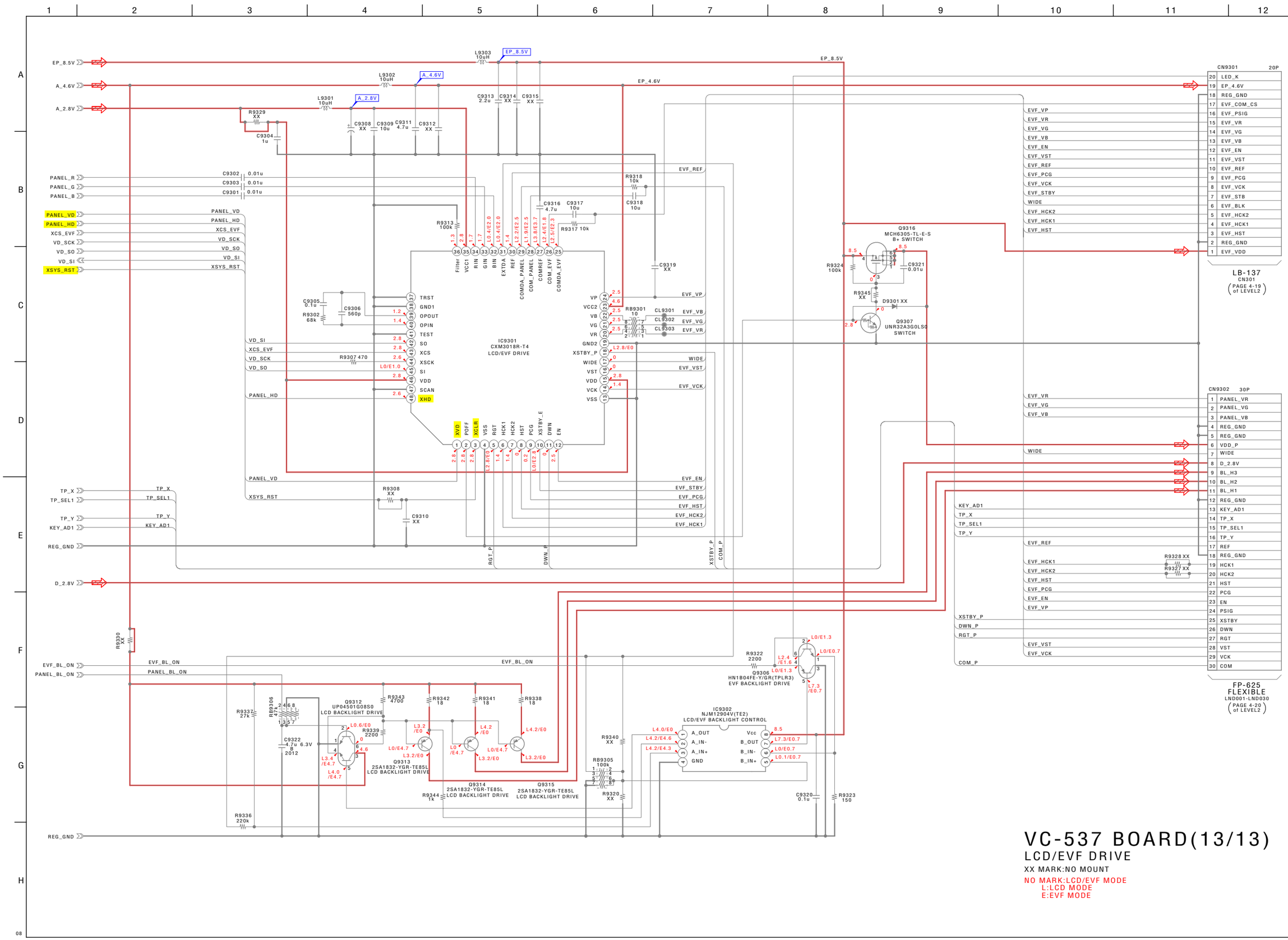
SERVO

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

*:IMPOSSIBLE TO MEASURE THE VOLTAGE AT THE MARKED POINTS.


1
2
3
4
A
B
C
D
E
F
CAM_SCK
CAM_SO
DA_STRB
CAM_SCK
CAM_SO
DA_STRB
R9201
XX
A_2.8V
C9201
4.7u
DA_STRB
CAM_SCK
CAM_SO
0
2.7
0
8
7
6
5
LD
CLK
DI
GND
IC9201
NJW5210RB1
EVR(D/A CONVERTER)
AO1
AO2
AO3
VCC
1
2
3
4
1.3
0.9
0.8
2.8
FREQ_TUNE
HALL_GAIN
HALL_OFFSET
HALL_GAIN
HALL_OFFSET
FREQ_TUNE
HALL_GAIN
HALL_OFFSET
FREQ_TUNE
REG_GND
VC-537 BOARD(12/13)
EVR(D/A CONVERTER)
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
08


EP_8.5V
A_4.6V
A_2.8V
L9303 10uH
L9302 10uH
L9301 10uH
C9313 2.2u
C9314 XX
C9315 XX
C9308 XX
C9309 10u
C9311 4.7u
C9312 XX
R9329 XX
C9304 1u
EP_4.6V
PANEL_R
PANEL_G
PANEL_B
C9302 0.01u
C9303 0.01u
C9301 0.01u
EVF_REF
R9318 10k
C9318 10u
C9316 4.7u
C9317 10u
R9317 10k
R9313 100k
C9319 XX
PANEL_VD
PANEL_HD
XCS_EVF
VD_SCK
VD_SO
VD_SI
XSYS_RST
Filter
VCC1
RIN
GIN
BIN
EXTDA
REF
COMDA_PANEL
COM_PANEL
COMREF
COM_EVF
COMDA_EVF
C9305 0.1u
C9306 560p
R9302 68k
TRST
GND1
OPOUT
OPIN
TEST
SO
XCS
XSCK
SI
VDD
SCAN
XHD
IC9301
CXM3018R-T4
LCD/EVF DRIVE
VP
VCC2
VB
VG
VR
GND2
XSTBY_P
WIDE
VST
VDD
VCK
VSS
RB9301 10
CL9301
CL9302
CL9303
EVF_VP
EVF_VB
EVF_VG
EVF_VR
EVF_VST
EVF_VCK
R9307 470
XVD
PDFF
XCLR
VSS
RGT
HCK1
HCK2
HST
PCG
XSTBY_E
DWN
EN
EVF_EN
EVF_STBY
EVF_PCG
EVF_HST
EVF_HCK2
EVF_HCK1
R9308 XX
C9310 XX
RGT_P
DWN_P
XSTBY_P
COM_P
TP_X
TP_SEL1
TP_Y
KEY_AD1
REG_GND
D_2.8V
R9330 XX
EVF_BL_ON
PANEL_BL_ON
Q9316
MCH6305-TL-E-S
B+ SWITCH
R9324 100k
C9321 0.01u
R9345 XX
D9301 XX
Q9307
UNR32A3G0LSO
SWITCH
CN9301 20P
LED_K
EP_4.6V
REG_GND
EVF_COM_CS
EVF_PSIG
EVF_VR
EVF_VG
EVF_VB
EVF_EN
EVF_VST
EVF_REF
EVF_PCG
EVF_VCK
EVF_STBY
WIDE
EVF_HCK2
EVF_HCK1
EVF_HST
EVF_VDD
LB-137
CN301
(PAGE 4-19 of LEVEL2)
CN9302 30P
PANEL_VR
PANEL_VG
PANEL_VB
REG_GND
REG_GND
VDD_P
WIDE
D_2.8V
BL_H3
BL_H2
BL_H1
REG_GND
KEY_AD1
TP_X
TP_SEL1
TP_Y
REF
REG_GND
HCK1
HCK2
HST
PCG
EN
PSIG
XSTBY
DWN
RGT
VST
VCK
COM
R9328 XX
R9327 XX
FP-625
FLEXIBLE
LND001-LND030
(PAGE 4-20 of LEVEL2)
R9322 2200
Q9306
HN1B04FE-Y/GR(TPLR3)
EVF BACKLIGHT DRIVE
R89303 47k
R9337 27k
Q9312
UP04501G08S0
LCD BACKLIGHT DRIVE
R9343 4700
R9339 2200
C9322 4.7u 6.3V B 2012
Q9313
2SA1832-YGR-TE85L
LCD BACKLIGHT DRIVE
R9342 18
R9341 18
R9338 18
Q9314
2SA1832-YGR-TE85L
LCD BACKLIGHT DRIVE
R9344 1k
Q9315
2SA1832-YGR-TE85L
LCD BACKLIGHT DRIVE
IC9302
NJM12904V(TE2)
LCD/EVF BACKLIGHT CONTROL
A_OUT
A_IN-
A_IN+
GND
Vcc
B_OUT
B_IN-
B_IN+
R9340 XX
RB9305 100k
R9320 XX
C9320 0.1u
R9323 150
R9336 220k
VC-537 BOARD(13/13)
LCD/EVF DRIVE
XX MARK:NO MOUNT
NO MARK:LCD/EVF MODE
L:LCD MODE
E:EVF MODE

4-3. PRINTED WIRING BOARDS

Link

- VC-537 BOARD (SIDE A)
- VC-537 BOARD (SIDE B)
- COMMON NOTE FOR PRINTED WIRING BOARDS

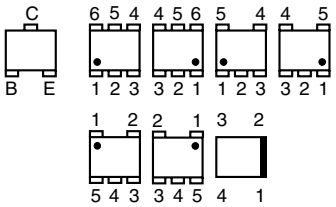
4-3. PRINTED WIRING BOARDS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS

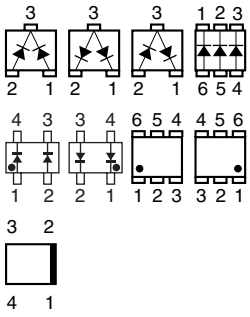
- : Uses unleaded solder.
- : Circuit board
  : Flexible board
  Pattern from the side which enables seeing.
  : pattern of the rear side
  (The other layers' patterns are not indicated)
- Through hole is omitted.
- There are a few cases that the part printed on diagram isn't mounted in this model.
- : panel designation

- Chip parts.

Transistor



Diode

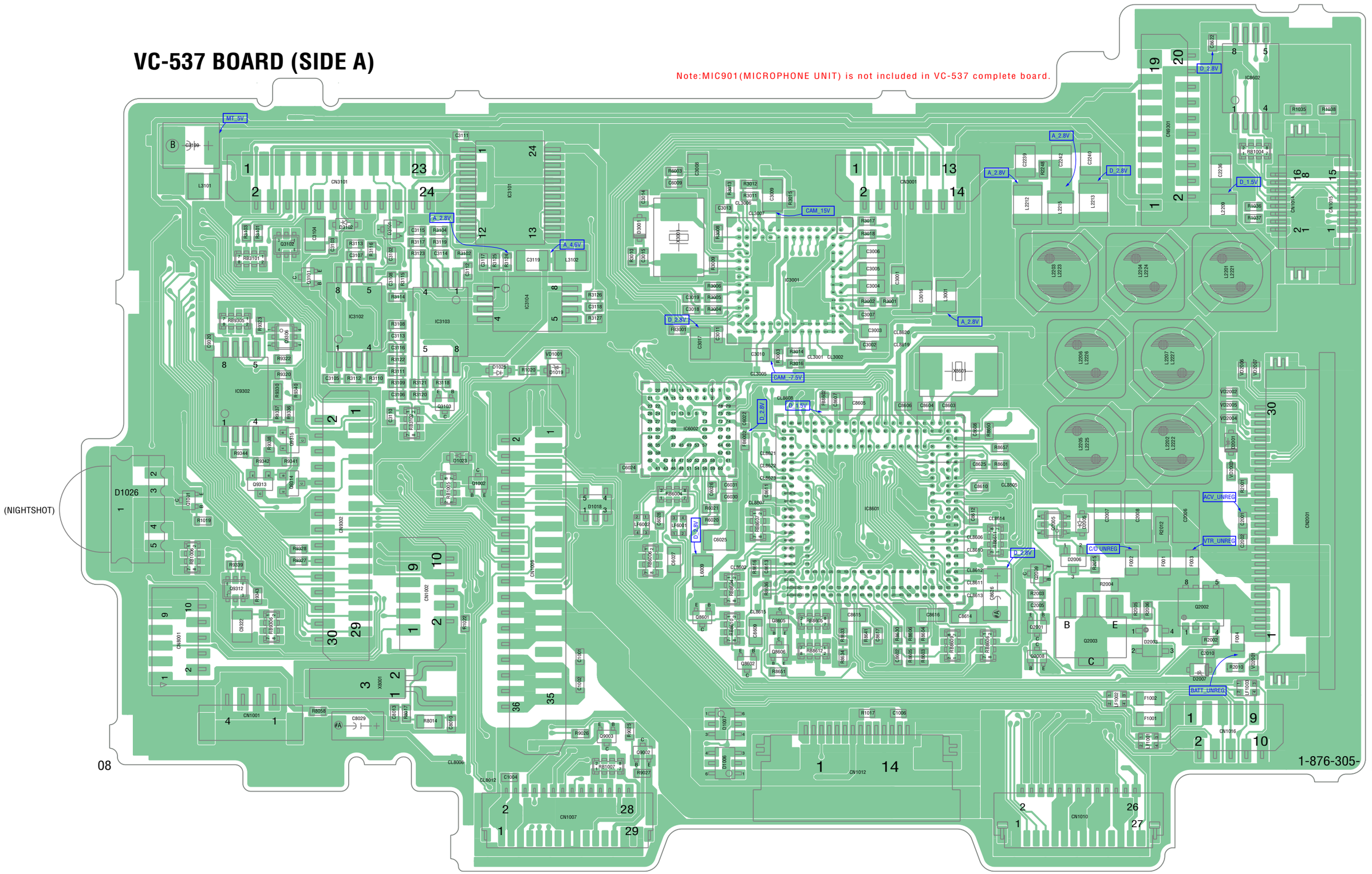


VC-537 (6 layers)

: Uses unleaded solder.

VC-537 BOARD (SIDE A)

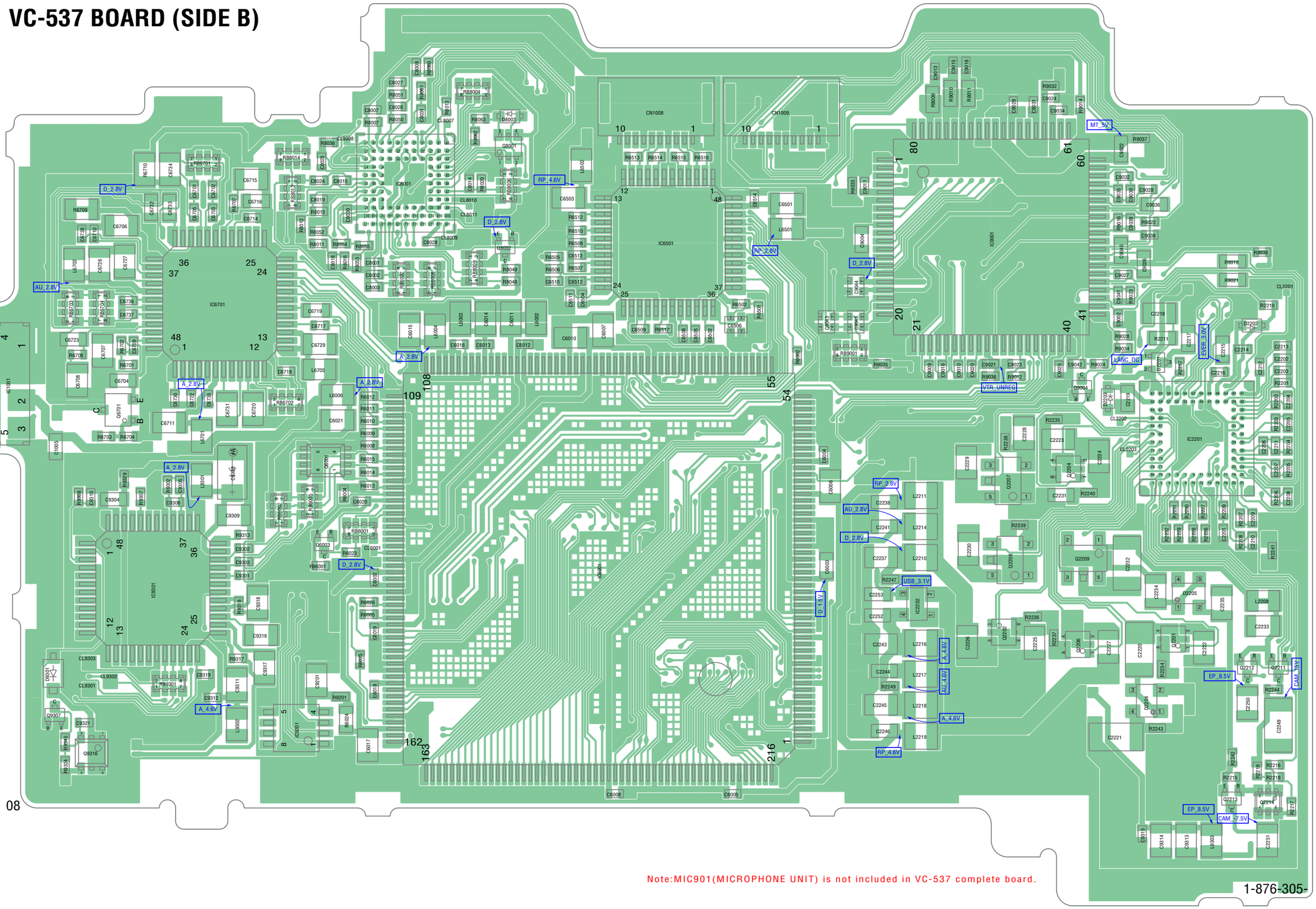
Note:MIC901(MICROPHONE UNIT) is not included in VC-537 complete board.



VC-537 (6 layers)

: Uses unleaded solder.

VC-537 BOARD (SIDE B)



Note:MIC901(MICROPHONE UNIT) is not included in VC-537 complete board.

1-876-305- 11

5. REPAIR PARTS LIST

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- CAPACITORS:
  uF: μF
- COILS
  uH: μH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA... , uPA... , μPA... ,
  uPB... , μPB... , uPC... , μPC... ,
  uPD..., μPD...

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Color Indication of Appearance Parts
  Example:
  (SILVER) : Cabinet's Color
  (Silver) : Parts Color

- Abbreviation
  AR : Argentine model
  AUS : Australian model
  BR : Brazilian model
  CH : Chinese model
  CND : Canadian model
  EE : East European model
  KR : Korea model
  MX : Mexican model
  NE : North European model

5-2. ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description			
	A-1496-718-A	VC-537 BOARD, COMPLETE (SERVICE) (HC51E/HC52/HC52E)			
	A-1496-719-A	VC-537 BOARD, COMPLETE (SERVICE) (HC53E/HC54/HC54E)			
		**********			
(MIC901 (MICROPHONE UNIT) is not included in VC-537 complete board (SERVICE).)					
		< MICROPHONE >			
MIC901	1-542-712-11	MICROPHONE UNIT			
		< CAPACITOR >			
C1004	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1006	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2001	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2002	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2005	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C2201	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2202	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
C2203	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2204	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
C2205	1-100-581-81	CERAMIC CHIP	0.0047uF	10%	50V
C2206	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C2207	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C2208	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C2209	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C2210	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C2211	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C2212	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2213	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2214	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2215	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2216	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2217	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2218	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C2219	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2220	1-127-861-11	CERAMIC CHIP	2.2uF	10%	16V
C2221	1-127-861-11	CERAMIC CHIP	2.2uF	10%	16V
C2222	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2223	1-112-300-91	CERAMIC CHIP	4.7uF	10%	10V
C2224	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2225	1-112-300-91	CERAMIC CHIP	4.7uF	10%	10V
C2226	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2227	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2228	1-112-300-91	CERAMIC CHIP	4.7uF	10%	10V
C2229	1-112-300-91	CERAMIC CHIP	4.7uF	10%	10V
C2230	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2231	1-165-884-91	CERAMIC CHIP	2.2uF	10%	6.3V
C2232	1-127-820-11	CERAMIC CHIP	4.7uF	10%	16V
C2234	1-100-591-91	CERAMIC CHIP	1uF	10%	25V
C2235	1-100-591-91	CERAMIC CHIP	1uF	10%	25V
C2236	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2238	1-165-884-91	CERAMIC CHIP	2.2uF	10%	6.3V
C2239	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2240	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2241	1-165-884-91	CERAMIC CHIP	2.2uF	10%	6.3V
C2243	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2244	1-165-884-91	CERAMIC CHIP	2.2uF	10%	6.3V
C2246	1-165-884-91	CERAMIC CHIP	2.2uF	10%	6.3V
C2249	1-127-820-11	CERAMIC CHIP	4.7uF	10%	16V
C2250	1-125-889-11	CERAMIC CHIP	2.2uF	10%	10V
C2251	1-125-889-11	CERAMIC CHIP	2.2uF	10%	10V
C2253	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3001	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3002	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3003	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3004	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3005	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3006	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3007	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3008	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C3009	1-100-591-91	CERAMIC CHIP	1uF	10%	25V
C3010	1-128-934-11	CERAMIC CHIP	0.33uF	20%	10V
C3011	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3014	1-164-856-81	CERAMIC CHIP	18PF	5%	50V
C3015	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C3016	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C3017	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C3103	1-100-581-81	CERAMIC CHIP	0.0047uF	10%	50V
C3104	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3105	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3106	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3107	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C3108	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
C3109	1-113-682-11	TANTAL. CHIP	33uF	20%	10V
C3110	1-100-415-91	CERAMIC CHIP	0.47uF	10%	6.3V
C3112	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C3113	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C3116	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C3117	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3119	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6002	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6003	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C6004	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6005	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6006	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6008	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6010	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6011	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6012	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6013	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6014	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6015	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6016	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6017	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6018	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6019	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6020	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6021	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6022	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6024	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C6025	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6026	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			
C6027	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C6028	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C6501	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6502	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6503	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6505	1-100-415-91	CERAMIC CHIP	0.47uF	10%	6.3V
C6506	1-100-249-11	CERAMIC CHIP	0.01uF	10%	16V
C6508	1-100-415-91	CERAMIC CHIP	0.47uF	10%	6.3V
C6509	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6510	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6511	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6512	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6701	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6702	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6704	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C6707	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6709	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6710	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6711	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C6714	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6715	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6716	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C6717	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C6718	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6719	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C6720	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C6722	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6726	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6727	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6728	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6729	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6730	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C6731	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C6732	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C6733	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C6736	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C6737	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C8007	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C8008	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C8010	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V
C8013	1-128-702-81	CERAMIC CHIP	11PF	5%	50V
C8014	1-100-415-91	CERAMIC CHIP	0.47uF	10%	6.3V
C8015	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C8018	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C8019	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C8026	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C8027	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C8028	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C8029	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
C8031	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C8603	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V
C8604	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V
C8606	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C8607	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C8608	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C8609	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C8611	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C8612	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			
C8613	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C8614	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C8615	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C8617	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C8622	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C8625	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9004	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C9009	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9010	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9011	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C9013	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C9015	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C9018	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C9021	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C9022	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C9024	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C9025	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9026	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C9027	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C9028	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
C9029	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C9030	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C9031	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C9032	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C9034	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C9035	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C9036	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C9038	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C9039	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C9040	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C9041	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C9042	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C9043	1-100-246-11	CERAMIC CHIP	0.001uF	10%	50V
C9044	1-100-249-11	CERAMIC CHIP	0.01uF	10%	16V
C9045	1-100-251-11	CERAMIC CHIP	0.047uF	10%	10V
C9201	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C9301	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9302	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9303	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9304	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C9305	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
* C9306	1-100-741-81	CERAMIC CHIP	560PF	5%	50V
C9309	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C9311	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C9313	1-125-889-11	CERAMIC CHIP	2.2uF	10%	10V
C9316	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C9317	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C9318	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C9320	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C9321	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C9322	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V

< CONNECTOR >

CN1001	1-816-232-11	PIN, CONNECTOR (PC BOARD) 4P	
* CN1002	1-779-329-51	FFC/CONNECTOR, FPC (LIF (NON-ZIF)) 10P	
* CN1007	1-818-818-71	CONNECTOR, FPC (ZIF) 29P	
* CN1008	1-816-643-51	FFC/FPC CONNECTOR (LIF) 10P	
* CN1009	1-816-643-51	FFC/FPC CONNECTOR (LIF) 10P	

Ref. No.	Part No.	Description
* CN1010	1-820-874-51	CONNECTOR, FPC (ZIF) 27P
* CN1012	1-819-257-51	CONNECTOR, FFC/FPC (ZIF) 14P
CN1014	1-766-338-51	CONNECTOR, FFC/FPC 8P
* CN1016	1-779-329-51	FFC/CONNECTOR, FPC (LIF (NON-ZIF)) 10P
* CN2001	1-691-368-51	CONNECTOR, FFC/FPC (ZIF) 30P
* CN3001	1-815-762-51	CONNECTOR, FFC/FPC 14P
* CN3101	1-815-763-51	CONNECTOR, FFC/FPC 24P
* CN9301	1-793-331-51	CONNECTOR, FFC/FPC (LIF) 20P
CN9302	1-779-339-51	FFC/CONNECTOR, FPC (LIF (NON-ZFF)) 30P
		< DIODE >
* D1026	6-501-598-01	DIODE CL-335IRS-X-TS
D2003	8-719-074-08	DIODE MA4ZD03001S0
* D2201	6-501-928-01	DIODE MAS3132EGLS0
D2202	6-500-813-01	DIODE MA2SD32008S0
D2203	6-500-813-01	DIODE MA2SD32008S0
D2204	8-719-074-08	DIODE MA4ZD03001S0
D2205	8-719-074-08	DIODE MA4ZD03001S0
D3001	8-719-082-63	DIODE 1SV329 (TPL3)
* D3102	6-501-947-01	DIODE MA2S1110G8S0
		< FUSE >
⚠F002	1-576-406-11	FUSE, MICRO (1608) (1.4A/32V)
⚠F003	1-576-406-11	FUSE, MICRO (1608) (1.4A/32V)
⚠F004	1-576-406-11	FUSE, MICRO (1608) (1.4A/32V)
⚠F1001	1-576-647-11	FUSE (0.2A/50V)
⚠F1002	1-576-647-11	FUSE (0.2A/50V)
		< FERRITE BEAD >
FB3001	1-400-331-11	FERRITE, EMI (SMD) (1005)
FB6001	1-400-331-11	FERRITE, EMI (SMD) (1005)
FB6002	1-400-331-11	FERRITE, EMI (SMD) (1005)
FB8602	1-400-331-11	FERRITE, EMI (SMD) (1005)
		< IC >
IC2201	6-707-649-01	IC MB44A125ALGL-G-ERE1
* IC2202	6-708-446-01	IC R1114Q311D-TR-FA
* IC3001	6-710-445-01	IC NN12075A-BB
IC3101	8-759-637-96	IC uPD16877MA-6A5-E2
IC3102	8-759-693-13	IC NJM12904V (TE2)
IC3103	8-759-693-13	IC NJM12904V (TE2)
IC3104	8-759-693-13	IC NJM12904V (TE2)
IC6001	8-752-418-16	IC CXD3164R
* IC6002	6-709-272-01	IC SN0306037AZVWR
IC6501	8-752-106-95	IC CXA3619R-T4
* IC6701	6-710-463-01	IC NN12922A-BB
* IC8001	6-807-206-01	IC MB95005BGL-G-104-ERE1
* IC8601	6-807-840-01	IC MB91195ABGL-G-247-ERE1
IC8602	6-702-168-01	IC AK6512CM-E2
IC9001	6-705-676-01	IC TB6550FG (O, EB)
IC9201	6-706-663-01	IC NJW5210RB1
* IC9301	8-753-242-24	IC CXM3018R-T4
IC9302	8-759-693-13	IC NJM12904V (TE2)
		< COIL >
L2201	1-456-137-11	INDUCTOR 22uH
L2202	1-456-137-11	INDUCTOR 22uH
L2203	1-456-137-11	INDUCTOR 22uH
L2204	1-456-138-11	INDUCTOR 33uH
L2205	1-456-137-11	INDUCTOR 22uH
L2206	1-456-138-11	INDUCTOR 33uH
L2207	1-456-138-11	INDUCTOR 33uH
L2209	1-469-553-21	INDUCTOR 4.7uH
L2211	1-469-553-21	INDUCTOR 4.7uH
L2212	1-400-784-21	INDUCTOR 4.7uH
L2213	1-400-784-21	INDUCTOR 4.7uH
L2214	1-469-553-21	INDUCTOR 4.7uH
L2216	1-469-553-21	INDUCTOR 4.7uH
L2217	1-469-553-21	INDUCTOR 4.7uH
L2219	1-469-553-21	INDUCTOR 4.7uH
L3001	1-400-588-11	INDUCTOR 10uH
L3101	1-469-553-21	INDUCTOR 4.7uH
L3102	1-400-588-11	INDUCTOR 10uH
L6002	1-400-588-11	INDUCTOR 10uH
L6003	1-400-588-11	INDUCTOR 10uH
L6004	1-400-588-11	INDUCTOR 10uH
L6006	1-400-588-11	INDUCTOR 10uH
L6009	1-400-588-11	INDUCTOR 10uH
L6501	1-400-588-11	INDUCTOR 10uH
L6502	1-400-588-11	INDUCTOR 10uH
L6701	1-400-588-11	INDUCTOR 10uH
L6702	1-400-588-11	INDUCTOR 10uH
L6705	1-400-588-11	INDUCTOR 10uH
L9301	1-400-588-11	INDUCTOR 10uH
L9302	1-400-588-11	INDUCTOR 10uH
L9303	1-400-588-11	INDUCTOR 10uH
		< LINE FILTER >
LF1002	1-400-633-21	COMMON MODE CHOKE COIL
LF1003	1-400-633-21	COMMON MODE CHOKE COIL
		< TRANSISTOR >
Q1001	6-550-102-01	TRANSISTOR 2SC5663T2L
* Q2001	6-551-758-01	TRANSISTOR 2SC5846G0LS0
Q2002	6-551-115-01	TRANSISTOR ECH8631-S-TL-E
Q2003	8-729-101-07	TRANSISTOR 2SB798-DL
* Q2008	6-551-766-01	TRANSISTOR UNR32A3G0LS0
Q2201	6-550-813-01	TRANSISTOR SCH2806-TL-E (HC51E/HC52/HC52E)
* Q2201	6-551-641-01	TRANSISTOR MTM867270LS0 (HC53E/HC54/HC54E)
Q2202	6-550-813-01	TRANSISTOR SCH2806-TL-E (HC51E/HC52/HC52E)
* Q2202	6-551-641-01	TRANSISTOR MTM867270LS0 (HC53E/HC54/HC54E)
Q2204	6-550-813-01	TRANSISTOR SCH2806-TL-E (HC51E/HC52/HC52E)
* Q2204	6-551-641-01	TRANSISTOR MTM867270LS0 (HC53E/HC54/HC54E)
Q2206	6-550-813-01	TRANSISTOR SCH2806-TL-E (HC51E/HC52/HC52E)
* Q2206	6-551-641-01	TRANSISTOR MTM867270LS0 (HC53E/HC54/HC54E)
Q2207	6-550-560-01	TRANSISTOR CPH5819-TL-E
Q2208	6-550-560-01	TRANSISTOR CPH5819-TL-E
Q2209	6-550-560-01	TRANSISTOR CPH5819-TL-E
* Q2211	6-551-836-01	TRANSISTOR 2SA2078G0LS0

• Refer to page 5-1 for mark ⚠.

Ref. No.	Part No.	Description			
* Q2212	6-551-836-01	TRANSISTOR	2SA2078G0LS0		
* Q2213	6-551-758-01	TRANSISTOR	2SC5846G0LS0		
* Q2214	6-551-846-01	TRANSISTOR	UP04401G08S0		
Q3101	6-550-758-01	TRANSISTOR	DTC113TMFS6T2L		
* Q3102	6-551-850-01	TRANSISTOR	UP04116G08S0		
* Q3103	6-551-758-01	TRANSISTOR	2SC5846G0LS0		
* Q6003	6-551-760-01	TRANSISTOR	UNR31A3G0LS0 (HC53E/HC54/HC54E)		
Q6701	8-729-056-75	TRANSISTOR	MCH3211-TL-E		
* Q8002	6-551-771-01	TRANSISTOR	UNR31AFG0LS0		
* Q8601	6-551-766-01	TRANSISTOR	UNR32A3G0LS0		
* Q8602	6-551-758-01	TRANSISTOR	2SC5846G0LS0		
Q8605	6-550-174-01	TRANSISTOR	2SA2030T2L		
* Q9002	6-551-758-01	TRANSISTOR	2SC5846G0LS0		
Q9003	6-550-174-01	TRANSISTOR	2SA2030T2L		
* Q9004	6-551-765-01	TRANSISTOR	UNR32A1G0LS0		
Q9306	8-729-054-48	TRANSISTOR	UP04601008S0		
* Q9307	6-551-766-01	TRANSISTOR	UNR32A3G0LS0		
* Q9312	6-551-847-01	TRANSISTOR	UP04501G08S0		
Q9313	8-729-425-50	TRANSISTOR	2SB1462-Q		
Q9314	8-729-425-50	TRANSISTOR	2SB1462-Q		
Q9315	8-729-425-50	TRANSISTOR	2SB1462-Q		
Q9316	6-551-184-01	TRANSISTOR	MCH6305-TL-E-S		
		< RESISTOR >			
R1017	1-218-943-11	RES-CHIP	150	5%	1/16W
R1019	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R1022	1-218-951-11	RES-CHIP	680	5%	1/16W
R2001	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2002	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2003	1-218-989-11	RES-CHIP	1M	5%	1/16W
R2004	1-216-797-11	METAL CHIP	10	5%	1/10W
R2005	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R2006	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R2010	1-218-949-11	RES-CHIP	470	5%	1/16W
R2201	1-218-974-11	RES-CHIP	56K	5.00%	1/16W
R2202	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2203	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R2204	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2205	1-218-969-11	RES-CHIP	22K	5%	1/16W
R2206	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2207	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2208	1-218-974-11	RES-CHIP	56K	5.00%	1/16W
R2209	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R2210	1-218-941-81	RES-CHIP	100	5%	1/16W
R2211	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R2215	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2216	1-218-969-11	RES-CHIP	22K	5%	1/16W
R2217	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R2218	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R2219	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R3003	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3009	1-218-989-11	RES-CHIP	1M	5%	1/16W
R3010	1-218-985-11	RES-CHIP	470K	5%	1/16W
R3108	1-218-989-11	RES-CHIP	1M	5%	1/16W
R3109	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R3110	1-218-981-91	RES-CHIP	220K	5%	1/16W
R3111	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3112	1-218-985-11	RES-CHIP	470K	5%	1/16W
R3113	1-218-985-11	RES-CHIP	470K	5%	1/16W
R3115	1-218-967-11	RES-CHIP	15K	5%	1/16W
R3116	1-218-985-11	RES-CHIP	470K	5%	1/16W
R3117	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3118	1-218-947-11	RES-CHIP	330	5%	1/16W
R3119	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3120	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3121	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3122	1-218-973-11	RES-CHIP	47K	5%	1/16W
R3124	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R3125	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R3126	1-208-947-11	RES-CHIP	330K	0.50%	1/16W
R3127	1-218-985-11	RES-CHIP	470K	5%	1/16W
R6004	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R6008	1-218-965-11	RES-CHIP	10K	5%	1/16W
R6009	1-218-965-11	RES-CHIP	10K	5%	1/16W
R6010	1-218-951-11	RES-CHIP	680	5%	1/16W
R6011	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R6012	1-208-873-11	RES-CHIP	270	0.50%	1/16W
R6013	1-208-675-11	METAL CHIP	470	0.5%	1/16W
R6014	1-208-675-11	METAL CHIP	470	0.5%	1/16W
R6015	1-208-675-11	METAL CHIP	470	0.5%	1/16W
R6020	1-208-866-11	METAL CHIP	130	0.5%	1/16W
R6021	1-208-906-81	METAL CHIP	6.2K	0.5%	1/16W
R6023	1-218-955-11	RES-CHIP	1.5K	5% (HC53E/HC54/HC54E)	1/16W
R6024	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R6501	1-218-965-11	RES-CHIP	10K	5%	1/16W
R6502	1-218-969-11	RES-CHIP	22K	5%	1/16W
R6505	1-218-965-11	RES-CHIP	10K	5%	1/16W
R6506	1-218-965-11	RES-CHIP	10K	5%	1/16W
R6507	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R6508	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R6510	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R6512	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R6513	1-208-871-81	METAL CHIP	220	0.5%	1/16W
R6514	1-208-871-81	METAL CHIP	220	0.5%	1/16W
R6515	1-208-871-81	METAL CHIP	220	0.5%	1/16W
R6516	1-208-871-81	METAL CHIP	220	0.5%	1/16W
R6701	1-218-977-11	RES-CHIP	100K	5%	1/16W
R6702	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R6703	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R6704	1-218-973-11	RES-CHIP	47K	5%	1/16W
R6707	1-218-977-11	RES-CHIP	100K	5%	1/16W
R8007	1-218-973-11	RES-CHIP	47K	5%	1/16W
R8011	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R8012	1-218-989-11	RES-CHIP	1M	5%	1/16W
R8013	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R8014	1-219-570-11	METAL CHIP	10M	5%	1/10W
R8015	1-218-985-11	RES-CHIP	470K	5%	1/16W
R8016	1-208-927-11	METAL CHIP	47K	0.5%	1/16W
R8020	1-218-949-11	RES-CHIP	470	5%	1/16W
R8048	1-218-977-11	RES-CHIP	100K	5%	1/16W
R8049	1-218-989-11	RES-CHIP	1M	5%	1/16W
R8050	1-208-703-11	METAL CHIP	6.8K	0.5%	1/16W
R8051	1-208-893-11	METAL CHIP	1.8K	0.5%	1/16W
R8601	1-218-941-81	RES-CHIP	100	5%	1/16W

Ref. No.	Part No.	Description			
R8604	1-218-973-11	RES-CHIP	47K	5%	1/16W
R8616	1-218-973-11	RES-CHIP	47K	5%	1/16W
R8633	1-218-981-91	RES-CHIP	220K	5%	1/16W
R8634	1-208-931-11	RES-CHIP	68K	0.5%	1/16W
R8636	1-218-973-11	RES-CHIP	47K	5%	1/16W
R8641	1-218-953-11	RES-CHIP	1K	5%	1/16W
R8651	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R8657	1-218-965-11	RES-CHIP	10K	5%	1/16W
R9009	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R9010	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R9011	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R9014	1-208-873-11	RES-CHIP	270	0.50%	1/16W
R9022	1-218-965-11	RES-CHIP	10K	5%	1/16W
R9023	1-218-967-11	RES-CHIP	15K	5%	1/16W
R9024	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R9025	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R9026	1-218-969-11	RES-CHIP	22K	5%	1/16W
R9027	1-218-977-11	RES-CHIP	100K	5%	1/16W
R9034	1-218-973-11	RES-CHIP	47K	5%	1/16W
R9302	1-208-931-11	RES-CHIP	68K	0.5%	1/16W
R9307	1-218-949-11	RES-CHIP	470	5%	1/16W
R9313	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R9317	1-218-965-11	RES-CHIP	10K	5%	1/16W
R9318	1-218-965-11	RES-CHIP	10K	5%	1/16W
R9322	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R9323	1-208-663-11	METAL CHIP	150	0.5%	1/16W
R9324	1-218-977-11	RES-CHIP	100K	5%	1/16W
R9336	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R9337	1-218-970-11	RES-CHIP	27K	5%	1/16W
R9338	1-220-876-11	METAL CHIP	18	0.5%	1/16W
R9339	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R9341	1-220-876-11	METAL CHIP	18	0.5%	1/16W
R9342	1-220-876-11	METAL CHIP	18	0.5%	1/16W
R9343	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R9344	1-218-953-11	RES-CHIP	1K	5%	1/16W

< COMPOSITION CIRCUIT BLOCK >

RB1004	1-234-375-21	RES, NETWORK	1.0K (1005X4)	
RB1006	1-242-963-21	RES, NETWORK	33 (1005X4)	
RB1007	1-242-963-21	RES, NETWORK	33 (1005X4)	
* RB3101	1-234-380-21	RES, NETWORK	47K (1005X4)	
* RB3102	1-234-379-21	RES, NETWORK	22K (1005X4)	
* RB6001	1-234-714-11	RES, NETWORK	56 (1005X4)	(HC53E/HC54/HC54E)
* RB6004	1-234-714-11	RES, NETWORK	56 (1005X4)	
RB6006	1-234-378-11	RES, NETWORK	10K (1005X4)	
RB6701	1-234-376-11	RES, NETWORK	2.2K (1005X4)	
* RB6702	1-234-723-21	RES, NETWORK	75 (1005X4)	
* RB6703	1-234-938-21	RES, NETWORK	3.3K (1005X4)	
RB6704	1-234-381-21	RES, NETWORK	100K (1005X4)	
RB8004	1-234-375-21	RES, NETWORK	1.0K (1005X4)	
RB8006	1-234-381-21	RES, NETWORK	100K (1005X4)	
RB8008	1-234-378-11	RES, NETWORK	10K (1005X4)	
RB8009	1-234-375-21	RES, NETWORK	1.0K (1005X4)	
RB8013	1-234-375-21	RES, NETWORK	1.0K (1005X4)	
RB8014	1-234-381-21	RES, NETWORK	100K (1005X4)	
RB8604	1-234-381-21	RES, NETWORK	100K (1005X4)	
RB8606	1-234-381-21	RES, NETWORK	100K (1005X4)	
RB8607	1-234-378-11	RES, NETWORK	10K (1005X4)	
* RB8609	1-234-384-21	RES, NETWORK	1M (1005X4)	
RB8610	1-234-375-21	RES, NETWORK	1.0K (1005X4)	
RB8611	1-234-381-21	RES, NETWORK	100K (1005X4)	
* RB8612	1-234-938-21	RES, NETWORK	3.3K (1005X4)	
RB9001	1-234-378-11	RES, NETWORK	10K (1005X4)	
RB9301	1-234-369-21	RES, NETWORK	10 (1005X4)	
RB9305	1-234-381-21	RES, NETWORK	100K (1005X4)	
* RB9306	1-234-380-21	RES, NETWORK	47K (1005X4)	

< VARISTOR >

* VD2001	1-802-279-11	VARISTOR (SMD)
* VD2002	1-802-279-11	VARISTOR (SMD)
* VD2003	1-802-279-11	VARISTOR (SMD)
* VD2006	1-802-279-11	VARISTOR (SMD)
* VD2007	1-802-279-11	VARISTOR (SMD)

< VIBRATOR >

* X3001	1-767-203-41	VIBRATOR, CRYSTAL (36MHz)
* X8001	1-813-709-41	QUARTZCRYSTALUNITFOROSCILLATOR (32.768KHz)
* X8601	1-767-205-81	VIBRATOR, CRYSTAL (20MHz)

Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2007.12	Official Release	—	—